



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,376	07/11/2003	Christopher L. Flowers	FLO002-091	2244

7590 08/23/2006

DIEDERIKS & WHITELAW, PLC
12471 Dillingham Square, #301
Woodbridge, VA 22192

EXAMINER

LAMBELET, LAWRENCE EMILE

ART UNIT	PAPER NUMBER
----------	--------------

1732

DATE MAILED: 08/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/617,376	Applicant(s) FLOWERS ET AL.	
	Examiner Lawrence Lambelet	Art Unit 1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 14-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Group I invention (claims 8-13 drawn to method) in the reply filed on 6/14/2006 is acknowledged. Applicant correctly states that claims 1-7 should be included in Group I. The traversal is on the ground(s) that distinctness of invention between method and product was not established in the examiner's argument because the product cited, that of a dishwasher not requiring a removable door, was an improper example in view of the fact that no limitation requiring a removable door existed in the instant application.

Notwithstanding that the previous examiner probably meant "moveable door", an acknowledged limitation of independent product claim 14, the applicant's argument is not found persuasive because it has failed to show that the product would be materially different if made by another method. The inventions are distinct because an alternative method, namely a method wherein a stain-resistant coating is applied to the plastic surfaces of a dishwasher, can make substantially the same product. Consequently, the inventions require different examinations in view of their respective classifications, thereby placing a burden on the Office.

The requirement is still deemed proper and is therefore made FINAL.

Claims 14-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Group II invention, there being no allowable

generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 6/14/2006.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 9-11, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over McGinniss et al (U.S. Patent 4491653), and further in view of Seip et al (U.S. Patent Publication 2004/0171724).

McGinniss et al, hereafter "McGinniss", discloses a method for improving stain resistance of a polymeric solid, as recited by claim 1. McGinniss teaches a process of fluorinating the surface of an article (reaction) with a mixture of fluorine gas and air (oxygen) in a 1-2 liter reaction cell (chamber) thereby to impart improved dirt resistance (stain resistance). This is shown at lines 22-31 in column 2, 61-66 in column 2, 3-7 in column 5, 37-40 in column 7, 31-33 in column 10, 49-50 in column 10, and in reference claims 3-6.

McGinniss teaches a polypropylene substrate, as required by claim 2, at lines 49-50 in column 10.

McGinniss teaches a fluorination time of 1-30 minutes, meeting the 0.5-60 minute requirement of claim 3, and further teaches a fluorine gas concentration of 4%, meeting

the less than 5% vol requirement of claims 4 and 5. These teachings are shown at lines 35-43 in column 4 and in reference claims 3 and 5.

McGinniss teaches nitrogen as an additional component to the gas mixture, as required by claim 6, at lines 59-63 in column 4 and in reference claim 6.

McGinniss teaches a reaction pressure of about 1 atmosphere, as required by claim 13, and as shown at lines 27-31 in column 2.

McGinniss does not teach that the polymeric solid is a washing machine component, as required by claims 1 and 2, and further does not teach that the component is a dishwasher component, as required by claim 8, or a specific dishwasher component, as required by claims 9, 10, and 11.

Seip et al, hereafter "Seip", teaches enhanced stain resistance for such appliances as washing machines and dishwashers having polypropylene constituents. This is shown in the Abstract and in paragraph [0007]. It is well known in the art that dishwashing machines have tubs, door liners, and spray arms as plastic componentry.

McGinniss and Seip are combinable because they are concerned with a similar technical field, namely, stain-resistant polyolefin surfaces. One of ordinary skill in the art at the time of the invention would have found it obvious to include in the method of McGinniss the application, as taught by Seip, and would have been motivated to do so for the commercial benefit of a consumer product category.

Claims 7 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over McGinniss in view of Seip, as applied to claims 1-6, 9-11, and 13 above, and further in view of Büschges et al (U.S. Patent 5,882,728).

McGinniss and Seip teach the method of claims 1-6, 9-11, and 13, as discussed above.

McGinniss and Seip do not teach maintaining the reaction chamber at a temperature of approximately 30-70° C, as required by claim 12. McGinniss and Seip further do not teach a penetration depth of about 1000 Å (0.1 µm)

Büschges et al, hereafter "Büschges", teaches a (preferable) temperature range of 20-80° C at lines 1-5 in column 2, 16-25 in column 2, 28-33 in column 2 and 58-61 in column 2. Büschges further teaches a fluorinated layer depth of (preferably) 0.1-100 µm.

McGinniss, Seip, and Büschges are combinable because they are concerned with a similar technical field, namely, surface enhancement of polyolefin materials. One of ordinary skill in the art at the time of the invention would have found it obvious to include in the method of McGinniss and Seip the temperature range and penetration depth, as taught by Büschges, and would have been motivated to do so to optimize the reaction parameters and to provide sufficient barrier property.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following documents are cited to further show the state of the art with regard to improving stain resistance of plastic surfaces:

U.S. Patent 6,673,433 to Saeki et al

U.S. Patent Application Publication 2003/0051295 to Soane et al


Art Unit: 1732

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Lambelet whose telephone number is 571-272-1713. The examiner can normally be reached on 8 am-4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571-272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LEL


CHRISTINA JOHNSON
PRIMARY EXAMINER
8/11/06